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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,769	01/09/2006	Gianfranco Toscano	TOSC3001/JEK	3216
23364	7590	01/29/2007	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			MATTHEWS, ABRAHAM M	
			ART UNIT	PAPER NUMBER
			1755	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/29/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/563,769	TOSCANO, GIANFRANCO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Abraham M. Matthews	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 06 June 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 31-62 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 31-62 is/are rejected.  
 7) Claim(s) 34 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>06/06/2006</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Claim Objections***

Claim 34 is objected to because of the following informalities:

The sign indicating a range between numbers in the phrase "length in the range of 0.05 ÷ 10 mm and diameter in the range of 0.05 ÷ 10mm" should be a dash sign, not a division sign. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 35-37,41 and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. The phrase "or the like" in claim 35, line 2, is not defined by the claim, which renders the claim indefinite.
2. The phrase "or the like" in claim 36, line 2, is not defined by the claim, which renders the claim indefinite.
3. The phrase "or the like" in claim 37, line 2, is not defined by the claim, which renders the claim indefinite.
4. The term "transforming" in claim 41, in the statement "said foam is obtained by transforming ....", is not defined by the claim, which renders the claim indefinite.
5. The phrase "or similar materials" in claim 43, line 2, is not defined by the claim, which renders the claim indefinite.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 31-33,40,41,47-50, and 53-55 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pub. No. 2002/0117086 A1 by Shi et al.

Regarding Applicants' claim 31, Shi et al. disclose a mixture comprising a cementing material, lightweight aggregate, lime, fiber, gas-forming or foaming agent, and water, for producing fiber-reinforced, structural cellular lightweight concrete with a dry density of from about 45 lbs/ft<sup>3</sup> (720kg/m<sup>3</sup>) to about 90 lbs/ft<sup>3</sup> (1440 kg/m<sup>3</sup>) (Shi et al., page 3, paragraph [0039]). Shi et al. also disclose that said fiber comprises cellulose fibers, and the fiber content is preferably between about 0.02% to about 5% by weight (Shi et al., page 4, paragraphs [0046],[0047], and page 3, paragraph [0040]). That is, the fiber content is comprised between 0.144 kg and 72 kg per each cubic meter of finished product.

As to the "soundproofing agglomerates" recitation element in claim 1, Shi et al also further disclose that cellular light weight concrete which comprises lightweight aggregates is known for its properties including thermal and sound insulation (Shi et al., page 1, paragraph [0004], and page 4, paragraph [0043]).

Regarding Applicants' claim 50, Shi et al, as applied to claim 31 above, disclose a method of making fiber-reinforced cellular lightweight concrete , said method comprising mixing cement, fiber, a specific lightweight aggregate, lime, a gas-forming or foaming agent and a shrinkage reducing agent in a conventional concrete mixer to form a thick and viscous slurry which can be foamed and hardened at room or elevated temperatures (Shi et al., page 2, paragraph [0029], page 3, paragraph [0039], and paragraphs [0061],[0062] of Example 1).

The recitations of Applicants' claims 32,33,40,41,44,45,47-49, and 53-55 can be found in the above reference on page 2, paragraph [0029], page 3, paragraphs [0037],[0039],[0040],[0042] to [0044], page 4, paragraphs [0046],[0053], and page 5, paragraphs [0057] and [0058].

Claims 35-37,46 and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent No. 6,730,160 B2 to Barbosa.

Barbosa discloses a mixture of water and cellulose fibers, both of which can be comprised of readily available materials at the job site, such as the available water supply or natural water and scrap shredded paper, including newspaper or other discarded paper or cardboard materials, wherein said mixture is directed to the manufacture of structural insulating building materials. Barbosa also further discloses that coloured pigments and aggregates may be added for appearance (Barbosa, ABSTRACT, column 6, lines 30-53).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 34,38,39,42,43,51,52,56-59, and 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2002/0117086 A1 by Shi et al as applied to claims 31-33 above, and further in view of US Pub. No. 2003/0055132 A1 by Symons.

Regarding Applicants' claims 42 and 43, Shi et al., as applied to claim 31, disclose a mixture comprising a cementing material, lightweight aggregate, lime, fiber, gas-forming or foaming agent, and water, for producing fiber-reinforced, structural cellular lightweight concrete. Shi et al., however, do not specifically disclose said mixture further comprising a spongy material, wherein said spongy material is polystyrene or similar materials either virgin or recycled. Nevertheless, Symons, also drawn to water-based hardenable cement mixtures, discloses using particles of a thermoplastic resin foam (i.e., spongy material) in said mixture, wherein the said thermoplastic resin foam is polystyrene foam (Symons, page 1, paragraph [0016], and page 2, paragraph [0043]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added said polystyrene spongy material to the cement mixture of Shi et al, as taught by Symons, motivated by the fact that Symons discloses that during processing the thermoplastic resin foam tends to melt and to migrate to the surface of the product, to produce a hard water resistant skin (Symons, page 2, paragraph [0047]).

The recitations of Applicants' claims 34,38,39,51,52,56,58,59,61 and 62 can be found in Symons on page 2, paragraph [0048], page 1, paragraph [0021] and [0049], page 2, paragraphs [0040],[0041] to [0044], and page 4, Examples 1, 2, and 3.).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abraham M. Matthews whose telephone number is (571) 272-2495. The examiner can normally be reached on M-F 8:00 -4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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